



Docket No.: 22727-138

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Mehmet Toner et al.

Application No.: 10/563,774

Filed: January 6, 2006 Art Unit: 1653

For: PRESERVATION OF BIOMATERIALS

WITH TRANSPORTED PRESERVATION

AGENTS

Examiner: Not Yet Assigned

Confirmation No.: 3248

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to:

Commissioner for Patents, P.O. Box 1450, Alexandria (VA) 22313-4591

Dated: April 12, 2006

gnature:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR 1.98(a)(2).

Application No.: 10/563,774 Docket No.: 22727-138

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56 (b).

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 141449, under Order No. 22727-138.

Dated: April 12, 2006

Respectfully submitted,

Ronald E. Cahill

Registration No.: 38,403

NUTTER MCCLENNEN & FISH LLP

World Trade Center West 155 Seaport Boulevard

Boston, Massachusetts 02210-2604

(617) 439-2000

(617) 310-9000 (Fax)

Attorney for Applicant

1503600.1



PTO/SB/08a/b (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				Complete if Known		
		•		Application Number	10/563,774	
IN.	IFORMATION	I DI	SCLOSURE	Filing Date	January 6, 2006	
S	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Mehmet Toner et al.	
				Art Unit	1653	
	(Use as many she	eets as	s necess ary)	Examiner Name	Not Yet Assigned	
Sheet 1 of 3			3	Attorney Docket Number	22727-138	

U.S. PATENT DOCUMENTS						
	0.11	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear	
Examiner Initials*	Cite No. ¹	Number-Kind Code ² (if known)				
		6,030,807	02/29/2000	De Lencastre et al.		
		6,127,177	10/03/2000	Toner et al.		
		6,300,130	10/09/2001	Toner et al.		
		6,365,338 B1	04/02/2002	Bull et al.		
		6,403,376	06/11/2002	Fowler et al.		
		6,692,952	02/17/2004	Braff et al.		
		6,902,931	06/07/2005	Bieganski et al.		
		2003/0009024	01/09/2003	Curtis		

	FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵				
		WO 00/15032	03/23/2000	Russo et al.						
		WO 05/014792	02/17/2005	Toner et al.		L				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.usplo.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No. 1 Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
		AFT, R.L. et al., "Evaluation of 2-Deoxy-D-Glucose as a Ch Mechanisms of Cell Death," British J. Cancer 87(7):805-81		ic Agent:			
		BUSE, J. et al., "Human GLUT4/Muscle-Fat Glucose-Transporter Gene," Diabetes 41:1436-1445 (1992).					
		CARAYANNOPOULOS, M. et al., GLUT8 us a Glucose Transporter Responsible for Insulin- Stimulated Glucose Uptake in the Blastocyst," Proc. Natl. Acad. Sci. 13:7313-7318 (2000).					
		CHEN, T. et al., "Beneficial Effect of Intracellular Trehalose Mammalian Cells," Cryobiology 43(2):168 (2001).	on the Memb	rane Integrity of Dried			
		CHIARAMONTE, R. et al., "Identification of the 5' End of the Gene Encoding a Human Insulin-Responsive Glucose Transporter," Gene 130:307-308 (1993).					
		CHOI, W. et al., "Molecular Scanning of Insulin-Responsive Glucose Transporter (GLUT4) Gene in NIDDM Subjects," Diabetes 40:1712-1718 (1991).					
		CROWE, J.H. et al., "Anhydrobiosis," Annu. Rev. Physiol. 5 DOEGE, H. et al., Activity and Genomic Organization of Hu	54:579-599 (19	992). Transporter 9			
Examiner Signature	aminer Date						

PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449A/B/PTO Application Number 10/563,774 **INFORMATION DISCLOSURE** January 6, 2006 Filing Date STATEMENT BY APPLICANT Mehmet Toner et al. First Named Inventor Art Unit 1653 (Use as many sheets as necessary) Not Yet Assigned Examiner Name 2 3 22727-138 Sheet Attorney Docket Number

	(GLUT9), a Novel Member of the Family of Sugar-Transport Facilitators Predominantly
	Expressed in Brain and Leucocytes," Biochem. J. 350:771-776 (2000).
	DOEGE, H. et al., GLUT8, a Novel Member of the Sugar Transport Facilitator Family with
	Glucose Transport Activity," J. Biol. Chem. 275:16275-16280 (2000).
	DOEGE, H. et al., "Characterization of Human Glucose Transporter (GLUT) 11 (Encoded by
1	SLC2A11), a Novel Sugar-Transport Facilitator Specifically Expressed in Heart and Skeletal
	Muscle," Biochem. J. 359:443-459 (2001).
	EROGLU, A. et al., "Intracellular Trehalose Improves the Survival of Cryopreserved
	Mammalian Cells," Nat. Biotechnol. 18(2):163-167 (2000).
	FUKUMOTO, H. et al., "Characterization and Expression of Human HepG2/Erythrocyte
1 1	Glucose-Transporter Gene," Diabetes 37:657-661 (1989).
	FUKUMOTO, H. et al., "Cloning and Characterization of the Major Insulin-Responsive Glucose
	Transporter Expressed in Human Skeletal Muscle and Other Insulin-Responsive Tissues," J.
1 1	Biol. Chem. 264:7776-7779 (1989).
	GOULD, G.W. et al., "The Glucose Transporter Family: Structure, Function and Tissue-
	Specific Expression," Biochem. J. 295(Pt. 2):329-341 (1993).
	HIROSE et al., "cDNA Cloning and Tissue Specific Expression of a Gene for Sucrose
	Transporter from Rice (<i>Oryza Sativa</i> L.), Plant Cell Physiol. 38:1389-1396 (1997).
	HOPKINSON, D.N. et al., "Comparison of Saccarides as Osmotic Impermeants During
	Hypothermic Lung Graft Preservation," Transplantation 61(12):1667-1671 (1996).
 	IBBERSON et al., "GLUTX1, a Novel Mammalian Glucose Transporter Expressed in the
•	Central Nervous System and Insulin-Sensitive Tissues," J. Biol. Chem. 275:4607-4612 (2000).
 	International Search Report, from Intl. Appl. No. PCT/US04/25469, mailed August 2, 2005.
	KAYANO et al., "Evidence for a Family of Human Glucose Transporter-Like Proteins," J. Biol.
	Chem. 263:15245-15248 (1988).
	KAYANO et al., "Human Facilitative Glucose Transporters," J. Biol. Chem. 265:13276-13282
	(1990).
1 1	LONGO, N. et al., "Influx and Efflux of 3-O-Methyl-D-Glucose by Cultured Human Fibroblasts,"
	Am. J. Physiol. 254(5 Pt. 1):C628-C633 (1988).
1	MCVIE-WYLIE et al., "Molecular Cloning of a Novel Member of the GLUT Family of
	Transporters, SLC2A10 (GLUT10), Localized on Chromosome 20q13.1: A Candidate Gene for
	NIDDM Susceptibility," Genomics 72:113-117 (2001).
	MUECKLER et al., "Sequence and Structure of a Human Glucose Transporter," Science
	229:941:985 (1985).
	PHAY et al., "Cloning and Expression Analysis of a Novel Member of the Facilitative Glucose
	Transporter Family, SLC2A9 (GLUT9)," Genomics 66:217-220 (2000).
	RIESMEIER et al., "Isolation and Characterization of a Sucrose Carrier cDNA from Spinach by
1	Functional Expression in Yeast," EMBO J. 11:4705-4713 (1992).
	RIESMEIER et al., "Evidence for an Essential Role of the Sucrose Transporter in Phloem
	Loading and Assimilate Partitioning," EMBO J. 13:1-7 (1994).
	RIESMEIER et al., "Potato Sucrose Transporter Expression in Minor Veins Indicates a Role in
l .	Phloem Loading," Plant Cell 5:1591-1598 (1993).
	ROGERS et al., "Identification of a Novel Glucose Transporter-Like Protein-GLUT-12," Am. J.
I i	Endocrinol. Metabol. 282:E733-E738 (2002).
	SIDDIQI, M. et al., "Studies on the Uptake of 2-Deoxy-D-Glucose in Normal and Malignant Rat
1	Epithelial Liver Cells in Culture," Intl. J. Cancer 15(5):773-780 (1975).
	STOREY et al., "Effects of Temperature and Freezing on Hepatocytes Isolated from a Freeze-
	Tolerant Frog," Am. J. Physiol. Regul. Integr. Comp. Physiol. 266:R1477-R1482 (1994).
 	ULDRY et al., "Identification of a Mammalian H+-myo-Inositol Symporter Expressed
	Predominantly in the Brain," EMBO J. 20:4467-4477 (2001).
Examiner	Date Considered
Signature	Considered

	PTO/SB/08a/b (07-05) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.							
Sul	stitute for form 1449A/E	R/PTO		Complete if Known				
000	34400 101 101111 1440741	<i></i> 10		Application Number	10/563,774			
11	IFORMATIO	ON DI	SCLOSURE	Filing Date	January 6, 2006			
STATEMENT BY APPLICANT				First Named Inventor	Mehmet Toner et al.			
				Art Unit	1653			
(Use as many sheets as necessary)			s necess ary)	Examiner Name	Not Yet Assigned			
Sheet	3	of	3	Attorney Docket Number	22727-138			

	WADDELL et al., "Cloning and Expression of a Hepatic Microsomal Glucose Transport Protein," Biochem. J. 286:173-177 (1992).	
7	WALLBERG-HENRIKSSON et al., "Reversibility of Decreased Insulin-Stimulated Glucose Transport Capacity in Diabetic Muscle with <i>In Vitro</i> Incubation," J. Biol. Chem. 262(16):7665-7671 (1987).	
1	ZIEDLER et al., "Kinetics of 3-O-Methyl Glucose Transport in Red Blood Cells of Newborn Pigs," J. Gen. Physiol. 67:67-80 (1976).	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	Date	
Signature	Considered	

Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.